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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/592,898	06/13/2000	Geoffrey Howard Blackham	GJ-212J	7315

7590

09/30/2002

Joseph S Iandiorio  
Iandiorio & Teska  
260 Bear Hill Road  
Waltham, MA 02451-1018

EXAMINER

CRUZ, MAGDA

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 09/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/592,898

Applicant(s)

BLACKHAM, GEOFFREY  
HOWARD

Examiner

Magda Cruz

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 09 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 25-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 25-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 04 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 25-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn in view of Yamasaki, et al.

Wynn (GB 2 317 297 A) discloses a method of producing a display apparatus (page 5, lines 21-25), comprising a curved projection screen (2), at least a projector (1) for providing a display on the screen (2), positioning said projector (1) outside an enclosed display volume (Figure 2), providing a collimating mirror (5), providing a cab (16) for a person using the display apparatus. The projectors are provided in groups (Figure 4). A digital distortion correction means for removing distortion (page 14, lines 8-12). Optical blending means for optically blending overlapping images from the said at least one projector (page 8, lines 10-14; page 9, lines 20-24).

Wynn teaches the salient features of the present invention, except a method wherein varying the screen in shape and/or position in order to provide a variable image distance within the total field of view of the display apparatus.

Yamasaki, et al. (US Patent Number 5,547,382) shows a method wherein the screen position change in order to vary the image distance within the total field of view of the display apparatus (column 8, lines 53-57, 63-66).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the method disclosed by Yamasaki, et al. in combination with Wynn's invention, for the purpose simulating the actual riding feeling.

### ***Response to Arguments***

3. Applicant's arguments filed 07/22/2002 have been fully considered but they are not persuasive.

The applicant has argued that the prior art does not teach the "collimating mirror be a curved collimating mirror" and a "variation of image distance within the total filed of view". However, Wynn (GB 2 317 297 A) teaches such curved collimating mirror. This is taught on page 4, lines 1-7 and page 6, line 14. Furthermore, Yamasaki, et al. (US Patent Number 5,547,382) teaches such variation of image distance within the total filed of view, i.e. relative positional relationship between the eyes of the rider and the display screen. This is taught in column 8, lines 53-57 and 63-66.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Dostko (US Patent Number 4,348,187) discloses an aerial image visual display having a spherical screen.

Lacroix (US Patent Number 5,253,116) teaches a collimated viewing device with off-axis spherical mirror, having a projector that illuminates a convex side of the spherical screen.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (703)308-6367. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703)308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.

  
RUSSELL ADAMS  
SUPERVISOR, PATENT EXAMINER  
TECHNOLOGY CENTER 2800

Magda Cruz  
Patent Examiner  
September 20, 2002